

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
MARTINEZ et al
Serial No.: 09/486,142
Filed: February 18, 2000
For: OLIGONUCLEOTIDE...HORMONES

: J. Taylor
: Group: 1655
: 600 Third Avenue
: New York, N.Y. 10016

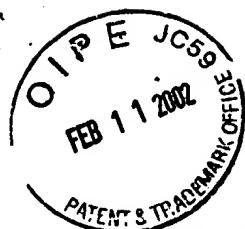
--26. A single stranded oligonucleotide OY comprising 9 to 42 nucleotides of the sequence $Y_1-Y_2-Y_3-Y_4-Y_5$, wherein Y_1 is a nucleotide sequence of 1 to 12 nucleotides or is absent, Y_2 is a trinucleotide which encodes for Gly, Y_3 is a nucleotide coding for Arg or Lys, Y_4 is a nucleotide coding for Arg or Lys and Y_5 is a nucleotide sequence $Y_6-Y_7-Y_8-Y_9$, wherein Y_6 is a trinucleotide which codes for Ser, Thr or Tyr, Y_7 is a trinucleotide which codes for any amino acid, Y_8 is a trinucleotide which codes for Glu or Asp and Y_9 is a nucleotide sequence of 1 to 12 nucleotides or is absent.

27. An oligonucleotide of claim 26 wherein Y_1 and Y_5 are absent suppressed

29. A single-stranded oligonucleotide OZ comprising 15 to 39 nucleotides and hybridizes under mild or stringent conditions with a consensus signal characteristic of amidated polypeptide hormones with the sequence having the formula

$Z_1-Z_2-Z_3-Z_4-Z_5-Z_6-Z_7$,

wherein Z_1 is a nucleotide sequence of 1 to 12 nucleotides or is absent, Z_2 and Z_3 are two trinucleotides which code for Leu, Z_4 and Z_5 are two trinucleotides which code for any two amino acids, Z_6 is a trinucleotide which codes for Leu and Z_7 is a nucleotide sequence of 1 to 12 nucleotides or is [absent] suppressed



Marked up version
of claims

427.034

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600 Third Avenue
New York N.Y. 10016
September 12, 2001

TECH CENTER 1600/2900
FEB 20 2002

RECEIVED

Asst. Commissioner for Patents
Washington, D.C. 20231

Sir:

Responsive to the office action of May 15, 2001, please amend
this application as follows:

IN THE CLAIMS:

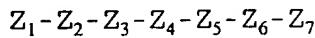
Cancel claims 1 to 25 and add the following claims:

--26. A single stranded oligonucleotide OY comprising 9 to 42 nucleotides of the sequence $Y_1-Y_2-Y_3-Y_4-Y_5$ wherein Y_1 is a nucleotide sequence of 1 to 12 nucleotides or is ^{suppressed} ~~absent~~, Y_2 is a trinucleotide which encodes for Gly, Y_3 is a nucleotide coding for Arg or Lys, Y_4 is a nucleotide coding for Arg or Lys and Y_5 is a nucleotide sequence, $Y_6-Y_7-Y_8-Y_9$ wherein Y_6 is a trinucleotide which codes for Ser, Thr or Tyr, Y_7 is a trinucleotide which codes for any amino acid, Y_8 is a trinucleotide which codes for Glu or Asp and Y_9 is a nucleotide sequence of 1 to 12 nucleotides or is absent.

27. An oligonucleotide of claim 26 wherein Y_1 and Y_9 are ^{suppressed} ~~absent~~.

28. An oligonucleotide OY of claim 27 wherein Y_2 is a trinucleotide which codes for Gly, Y_3 is a trinucleotide which codes for Lys, Y_4 is a trinucleotide which codes for Arg and Y_5 is a sequence of 3 trinucleotides which code for Ser-Ala-glu.

29. A single-stranded oligonucleotide OZ comprising 15 to 39 nucleotides and hybridizes under mild or stringent conditions with a consensus signal characteristic of amidated polypeptide hormones with the sequence having the formula



wherein Z_1 is a nucleotide sequence of 1 to 12 nucleotides or is absent, Z_2 and Z_3 are two trinucleotides which code for Leu, Z_4 and Z_5 are two trinucleotides which code for any two amino acids, Z_6 is a trinucleotide which codes for Leu and Z_7 is a nucleotide sequence of 1 to 12 nucleotides or is ^{Suppressed} absent.

30. A group of oligonucleotides OZ of claim 29 which constitute a combinational library.

31. A method for identifying the non-amidified precursor of a peptide having an amidated C-terminal end comprising 1) obtaining a DNA sample, 2) amplifying the fragment of interest by PCR technique with a group of oligonucleotides of claim 26, 3) identifying the DNA sequence(s) of the DNA sample which hybridize with the oligonucleotide of claim 26 and 4) identifying in the sequence(s) of at least one non-amidified precursor of peptides with an optional amidated C-terminal end.

32. The method of claim 31 wherein the amplification is effected with a combinational library of claim 30.--